

CLAIMS

1. A foam control composition comprising a liquid polymer of an unsaturated hydrocarbon, a branched siloxane resin, and a particulate filler which is insoluble in the liquid hydrocarbon polymer.
2. A foam control composition according to Claim 1 characterised in that the liquid hydrocarbon polymer is polyisobutene.
3. A foam control composition according to Claim 1 characterised in that the liquid hydrocarbon polymer has a molecular weight in the range 200 to 1500.
4. A foam control composition according to Claim 3 characterised in that the liquid hydrocarbon polymer has a molecular weight in the range 200 to 500 and in that the branched siloxane resin is soluble in the liquid hydrocarbon polymer
5. A foam control composition according to Claim 1 characterised in that the branched siloxane resin consists of monovalent trihydrocarbonsiloxy (M) groups of the formula $R''_3SiO_{1/2}$ and tetrafunctional (Q) groups $SiO_{4/2}$ wherein R'' denotes an alkyl group and the number ratio of M groups to Q groups is in the range 0.4:1 to 1.1:1.
6. A foam control composition according to Claim 1 characterised in that the branched siloxane resin is present at 1 to 40% by weight based on the liquid hydrocarbon polymer.
7. A foam control composition according to Claim 6 characterised in that the branched siloxane resin is present at 2 to 10% by weight based on the liquid hydrocarbon polymer.
8. A foam control composition according to Claim 1 characterised in that the particulate filler is a silica filler with an average particle size of from 0.5 to 30 μ m.

9. A foam control composition according to Claim 1 characterised in that the particulate filler is present at 2 to 10% by weight based on the liquid hydrocarbon polymer.

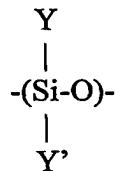
10. A foam control composition according to Claim 1 that is substantially free of polydiorganosiloxane fluid.

11. A foam control composition according to Claim 1 which further contains a substantially non-polar organic material of melting point 35 to 100°C which is at least partially miscible in its molten state with the liquid hydrocarbon polymer.

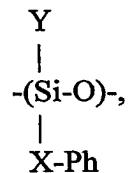
12. A foam control composition according to Claim 11 characterised in that the substantially non-polar material of melting point 35 to 100°C comprises an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 7 to 36 carbon atoms.

13. A foam control composition according to Claim 11 characterised in that the substantially non-polar material of melting point 35 to 100°C comprises 5-95 parts by weight of the organic polyol ester, and 5-95 parts by weight of a component that is miscible in its molten state with the organic polyol ester, and is more polar than the organic polyol ester component (A), at least one of the organic polyol ester and the more polar component being miscible with the liquid hydrocarbon polymer.

14. A foam control composition according to Claim 1 that additionally comprises 10 to 100% by weight based on the liquid hydrocarbon polymer of a polysiloxane fluid comprising at least 10% diorganosiloxane units of the formula



and up to 90% diorganosiloxane units of the formula



wherein X denotes a divalent aliphatic organic group bonded to silicon through a carbon atom; Ph denotes an aromatic group; Y denotes an alkyl group having 1 to 4 carbon atoms; and Y' denotes an aliphatic hydrocarbon group having 1 to 24 carbon atoms.

15. A foam control composition according to Claim 14 characterized in that the liquid hydrocarbon polymer has a molecular weight in the range 750 to 1500 and in that the polysiloxane fluid is insoluble in the liquid hydrocarbon polymer.

16. A foam control agent according to Claim 1 that is provided in the form of an oil-in-water emulsion.

17. A water-dispersible foam control composition comprising a foam control agent according to Claim 1 dispersed in a water-dispersible carrier.

18. A granulated foam control agent comprising a foam control composition according to Claim 1, supported on a particulate carrier.

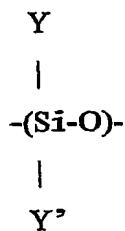
19. A granulated foam control agent according to Claim 18 characterized in that a water-soluble or water-dispersible binder is also deposited on the carrier particles.

AMENDED CLAIMS

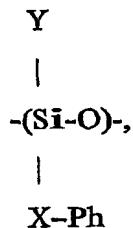
[received by the International Bureau on 29 March 2005 (29.03.05);
original claims 1, 4 amended, claims 2,3,6,7,9,11-13,15 cancelled]

1. A foam control composition comprising a liquid polyisobutene having a molecular weight in the range 200 to 1500, a branched siloxane resin, a particulate filler which is insoluble in the liquid polyisobutene, and an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 7 to 36 carbon atoms.
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2. A foam control composition according to Claim 1 characterized in that the liquid polyisobutene has a molecular weight in the range 200 to 500 and in that the branched siloxane resin is soluble in the liquid polyisobutene.
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3. A foam control composition according to Claim 1 characterised in that the branched siloxane resin consists of monovalent trihydrocarbonsiloxy (M) groups of the formula $R''_3SiO_{1/2}$ and tetrafunctional (Q) groups $SiO_{4/2}$ wherein R'' denotes an alkyl group and the number ratio of M groups to Q groups is in the range 0.4:1 to 1.1:1.
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4. A foam control composition according to Claim 1 characterised in that the particulate filler is a silica filler with an average particle size of from 0.5 to 30 μ m.
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5. A foam control composition according to Claim 1 that is substantially free of polydiorganosiloxane fluid.

6. A foam control composition according to Claim 1 that additionally comprises 10 to 100% by weight based on the liquid hydrocarbon polymer of a polysiloxane fluid comprising at least 10% diorganosiloxane units of the formula



and up to 90% diorganosiloxane units of the formula



15 wherein X denotes a divalent aliphatic organic group bonded to silicon through a carbon atom; Ph denotes an aromatic group; Y denotes an alkyl group having 1 to 4 carbon atoms; and Y' denotes an aliphatic hydrocarbon group having 1 to 24 carbon atoms.

7. A foam control agent according to Claim 1 that is provided in the form of an oil-in-water
20 emulsion.

8. A water-dispersible foam control composition comprising a foam control agent according to Claim 1 dispersed in a water-dispersible carrier.

25 9. A granulated foam control agent comprising a foam control composition according to Claim 1, supported on a particulate carrier.

10. A granulated foam control agent according to Claim 18 characterized in that a water-soluble or water-dispersible binder is also deposited on the carrier particles.